

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-3 (canceled)

Claim 4 (currently amended): ~~[[The method of claim 1]] A method for generating traffic information for analysis, the method comprising:~~

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the act of determining path-centric information based on the accepted at least one sample includes using at least a part of the at least one sample as a search key to find an item with a closest matching key in a data structure.

Claim 5 (original): The method of claim 4 wherein the data structure is a searchable data structure selected from a group consisting of (A) a hash table, (B) a binary search tree, and (C) a trie.

Claim 6 (currently amended): ~~[[The method of claim 1]] A method for generating traffic information for analysis, the method comprising:~~

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;

- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the act of determining path-centric information based on the accepted at least one sample includes:
 - i) using at least a part of the at least one sample as a search key to find a first item with a closest matching key in a first data structure; and
 - ii) using at least a part of the first item found as a search key to find a second item with a matching key in a second data structure.

Claim 7 (original): The method of claim 6 wherein the second item includes path-centric information.

Claim 8 (original): The method of claim 6 wherein the second item includes an origin autonomous system and a peer autonomous system.

Claim 9 (original): The method of claim 6 wherein the second item includes an autonomous system path.

Claim 10 (original): The method of claim 6 wherein the first and second data structures are tries.

Claim 11 (original): The method of claim 6 wherein the first data structure is a Radix trie.

Claim 12 (original): The method of claim 6 wherein the at least a part of the at least one sample used as a search key is an internet protocol prefix.

Claim 13 (original): The method of claim 6 wherein the at least a part of the at least one sample used as a search key is at least one of (A) a source address and (B) a destination address.

Claim 14 (original): The method of claim 6 wherein the at least a part of the first item found used as a search key is an autonomous system index.

Claim 15 (canceled)

Claim 16 (currently amended): [[The method of claim 1]] A method for generating traffic information for analysis, the method comprising:

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the path-centric information determined includes an origin autonomous system and a peer autonomous system.

Claim 17 (currently amended): ~~[[The method of claim 1]]~~ A method for generating traffic information for analysis, the method comprising:

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the path-centric information determined includes an autonomous system path.

Claim 18 (currently amended): ~~[[The method of claim 1]]~~ A method for generating traffic information for analysis, the method comprising:

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the act of adjusting a traffic metric of a traffic parameter based on the determined path-centric information includes:
 - i) using a part of the determined path-centric information as a key to search items of traffic parameters;

- ii) if a traffic parameter with a matching key is found, incrementing its traffic metric;
- iii) if none of the traffic parameters has a matching key, creating a new item.

Claim 19 (currently amended): ~~[[The method of claim 1]] A method for generating traffic information for analysis, the method comprising:~~

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the traffic metric adjusted is at least one of (A) a byte count and (B) a packet count.

Claim 20 (currently amended): ~~[[The method of claim 1]] A method for generating traffic information for analysis, the method comprising:~~

- a) accepting, by a data forwarding device, at least one sample derived from addressed data;
- b) determining, by the data forwarding device, path-centric information based on the accepted at least one sample; and
- c) adjusting, by the data forwarding device, a traffic metric of a traffic parameter based on the determined path-centric information, wherein the traffic parameter is selected from a group of traffic

parameters consisting of (A) a particular pair of source and destination addresses, (B) a particular pair of source and destination ports, and (C) a particular pair of autonomous systems.

Claims 21-25 (canceled)

Claim 26 (currently amended): ~~[[The apparatus of claim 25]]~~ An apparatus for generating traffic information for analysis, the apparatus comprising:

- a) an input for accepting at least one sample derived from addressed data;
- b) means for determining path-centric information based on the accepted at least one sample; and
- c) means for adjusting a traffic metric of a traffic parameter based on the determined path-centric information,

wherein the means for determining path-centric information based on the accepted at least one sample include a searching facility, the search facility (i) using at least a part of the at least one sample as a search key to find a first item with a closest matching key in a first data structure, and (ii) using at least a part of the first item found as a search key to find a second item with a matching key in a second data structure.

Claim 27 (original): The apparatus of claim 26 wherein the second item includes path-centric information.

Claim 28 (original): The apparatus of claim 26 wherein the second item includes an origin autonomous system and a peer autonomous system.

Claim 29 (original): The apparatus of claim 26 wherein the second item includes an autonomous system path.

Claim 30 (currently amended): ~~[[The apparatus of claim 25]]~~ An apparatus for generating traffic information for analysis, the apparatus comprising:

- a) an input for accepting at least one sample derived from addressed data;
- b) means for determining path-centric information based on the accepted at least one sample; and
- c) means for adjusting a traffic metric of a traffic parameter based on the determined path-centric information,

wherein the means for adjusting a traffic metric of a traffic parameter based on the determined path-centric information include

- i) a search facility, using a part of the determined path-centric information as a key to search items of traffic parameters; and
- ii) an aggregator, wherein if a traffic parameter with a matching key is found, the aggregator increments the traffic metric of the traffic parameter, and wherein if none of the traffic parameters has a matching key, the aggregator creates a new item.

Claim 31 (currently amended): ~~[[The apparatus of claim 25]]~~ An apparatus for generating traffic information for analysis, the apparatus comprising:

- a) an input for accepting at least one sample derived from addressed data;

- b) means for determining path-centric information based on the accepted at least one sample; and
- c) means for adjusting a traffic metric of a traffic parameter based on the determined path-centric information,

wherein the traffic parameter is selected from a group of traffic parameters consisting of (A) a particular pair of source and destination addresses, (B) a particular pair of source and destination ports, and (C) a particular pair of autonomous systems.

Claims 32-40 (canceled)